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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,212	12/05/2003	Gary L. Swoboda	TI-34655	9499

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TEXAS INSTRUMENTS INCORPORATED
P O BOX 655474, M/S 3999
DALLAS, TX 75265

EXAMINER	
PUENTE, EMERSON C	
ART UNIT	**PAPER NUMBER**
2113	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/729,212	SWOBODA, GARY L.	
	Examiner	Art Unit	
	Emerson C. Puente	2113	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12/5/03* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-15 have been examined.

This action is made **Non-Final**.

Specification

The abstract of the disclosure is objected to because the abstract is not in a single paragraph of 150 words or less. Correction is required. See MPEP § 608.01(b).

Drawings

Figure 1A and 1B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 8 is objected to because of the following informalities:

Regarding claim 8, please remove "ground" (see line 4 of claim).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-10 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the claim cites the limitation "apparatus"(see line 5 of claim). Examiner is uncertain if applicant intended to refer to the "apparatus" cited in the preamble (see line 1 of claim) or a different apparatus. Also, the claim cites the limitation "second signal paths from target processor mode identifying the mode of operation a central of the of operational signal" (see line 8-10 of claim). This phrase makes no sense. Examiner interprets claim limitation as "second signal paths". Furthermore, the claim cites the limitation "the unit providing a response to event signals the signals on the second signal paths"(see line 12-13 of claim). Examiner is uncertain whether applicant intended to claim "the unit providing a response to event signals ***from*** the signals on the second signal paths". If so, examiner suggests amending the claim accordingly.

Regarding claim 4, the claim cites "wherein the first mode of instruction code execution a background mode of instruction and a second mode of instruction execution was a foreground or program mode of instruction execution". First, examiner is uncertain whether applicant intended to claim "wherein the first mode of instruction code execution ***is*** a background mode of instruction and a second mode of instruction execution ***is*** a foreground or program mode of instruction execution" If so, examiner suggests amending the claim accordingly. Second, the

claim limitation is contradictory to the specification. The specification cites "Because the assertion of the response to the event is prohibited from occurring during the foreground code execution, the results of the detection of the events are delayed until the target processor returns to the background code execution" (see page 21 middle paragraph), indicating wherein the first mode of instruction code execution is a foreground mode of instruction and a second mode of instruction execution is a background or program mode of instruction execution.

Regarding claim 6, the claim cites "wherein the trigger unit generates a sync signal in response to a trigger signal". The claim limitation is contradictory to the specification. The specification discloses a Sync ID generation unit generating a sync signal, not the trigger unit (see figure 2 and page 13 lines 27-31).

Regarding claim 7, the claim cites "providing a delayed response to an event detected during a second mode of instruction execution, the response to the event delayed until the target processor enters a second mode of instruction" (see line 5-8 of claim). This phrase makes no sense and contradictory to the specification. Examiner is uncertain whether applicant intended to claim "providing a delayed response to an event detected during a second mode of instruction execution, the response to the event delayed until the target processor enters a ***first*** mode of instruction" If so, examiner suggests amending the claim accordingly.

Regarding claim 12, the claim cites "wherein the first mode of operation is a background or program mode of instruction execution and the second mode of operation is a background or interrupt service routine mode of instruction execution" The claim cites wherein the first and second mode can be both the background mode of instruction execution, which makes no sense and contradictory to the specification. Examiner is uncertain whether applicant intended to claim

"wherein the first mode of operation is a background or program mode of instruction execution and the second mode of operation is a ***foreground*** or interrupt service routine mode of instruction execution" If so, examiner suggests amending the claim accordingly.

The remaining claims, not specifically mentioned, are rejected for being dependent upon one of the claims mentioned above.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,2,5,7, and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent Application Publication 2004/0015879 of Pauw et al. referred hereinafter "Pauw".

Regarding claim 1, Pauw discloses in a target processor, an apparatus for controlling the response to an event, the apparatus comprising:

a central processing unit (see figure 1 item 120 or 200 and page 2 paragraph 15).

first signal paths from selected apparatus in the central processing unit, the selected apparatus receiving predetermined event signals (see figure 1 "enable/disable" or "control of task and details" and page 2 paragraph 15).

second signal paths from target processor mode identifying the mode of operation a central of the of operation signals (see figure 1 "enable/disable" or "control of task and details" and page 2 paragraph 15).

a unit coupled to the first and second signal paths, the unit providing a response to event signals the signals on the second signal paths (see figure 1 item 100 "tracing mechanism" and page 2 paragraph 15).

Regarding claim 2, Pauw discloses the claim limitation as discussed above. Pauw further discloses wherein the unit receives control signals from a user (see page 2 paragraph 15).

Regarding claim 5, Pauw discloses the claim limitation as discussed above. Pauw further discloses wherein the unit is a trigger unit and wherein the response to an event signal is the generation of a trigger signal (see figure 3 and page 3 paragraph 26-27).

Regarding claim 7, Pauw discloses the method of responding to an event detected in a target processor, the method comprising:

providing an immediate response to an event detected during a first mode of instruction execution. Pauw discloses a "trace off" mode (first mode) which responds to burst request (event) (see figure 3 and page 3 paragraph 25)

providing a delayed response to an event detected during a second mode of instruction execution, the response to the event delayed until the target processor enters a second mode of instruction execution. Pauw discloses a "awaiting trigger" mode (second mode) which responds to trigger event or stop request when it on the "awaiting trigger" mode (second mode) (see figure 3 and page 3 paragraph 26).

Regarding claim 10, Pauw discloses the claim limitation as discussed above. Pauw further discloses wherein the immediate and the delayed response is the generation of a trigger signal (see figure 3 and page 3 paragraph 26).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3,11,13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pauw in view of US Patent Application Publication 2004/0044776 of Larkin.

Regarding claim 3, Pauw discloses the claim limitation as discussed above. However, Pauw fails to disclose:

wherein the response to an event signal detected during a first mode of instruction code execution is delayed until a second mode of instruction code execution.

Larkin discloses a method of transferring data remotely that allows for retransmission at a later time when there is a network outage (see page 4 paragraph 53). It is understood a network outage indicates a first mode and a normal working network indicates a second mode.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Pauw and Larkin to enable retransmission of data at a later time when there is a network outage, indicating wherein the response to an event signal detected during a first mode of instruction code execution is delayed until a second mode of instruction

code execution. A person of ordinary skill in the art would have been motivated to make the combine the teachings because Pauw is concerned with remotely transmitting data (see page 2 paragraph 15 and 21) and enabling retransmission at a later time when there is no longer a network outage, as per teaching of Larkin (see page 4 paragraph 53), ensure data will be received.

Regarding claim 11, Pauw discloses a test and debug system in a target processor, the system comprising:

a central processing unit, the central processing unit generating event signals and mode of operation signals (see figure 1 item 120 or 200 and page 2 paragraph 15).

a logic unit responsive to the event signals and to the mode of operation signals, the logic unit providing an immediate response to an event signal in a first mode of operation. Pauw discloses responding to trigger event (see figure 3 and page 3 paragraph 26).

However, Pauw fails to explicitly discloses:

the logic unit providing a response to an event signal during second mode of operation in the first mode of operation.

Larkin discloses a method of transferring data remotely that allows for retransmission at a later time when there is a network outage (see page 4 paragraph 53). It is understood a network outage indicates a second mode and a normal working network indicates a first mode.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Pauw and Larkin to enable retransmission of data at a later time when there is a network outage, indicating the logic unit providing a response to an event

signal during second mode of operation in the first mode of operation. A person of ordinary skill in the art would have been motivated to make the combine the teachings because Pauw is concerned with remotely transmitting data (see page 2 paragraph 15 and 21) and enabling retransmission at a later time when there is no longer a network outage, as per teaching of Larkin (see page 4 paragraph 53), ensure data will be received.

Regarding claim 13, Pauw in view of Larkin discloses the claim limitation as discussed above. Pauw further discloses wherein the response is the generation of a trigger signal (see figure 3 and page 3 paragraph 26).

Regarding claim 14, Pauw in view of Larkin discloses the claim limitation as discussed above. Pauw further discloses in response to first control signals, the response of the logic unit to an event is generated immediately in both the first and the second mode of operation. Pauw discloses in response to connection request/burst request from the user, entering an awaiting trigger mode where it is awaiting a trigger (see page 3 paragraph 25-26).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pauw in view of US Patent No. 6,615,371 of McCullough et al. referred hereinafter "McCullough".

Regarding claim 6, Pauw discloses the claim limitation as discussed above. Pauw further discloses a trace stream generation apparatus (see figure 1 item 100 "tracing mechanism" and page 2 paragraph 15). However, Pauw fails to disclose:

wherein the trigger unit generates a sync signal in response to a trigger signal.

McCullough discloses a tracing system that uses trace sync signal to indicate the start of a group of substantive signal that provide trace information (see column 5 lines 41-46).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Pauw and McCullough to include sync signals, thus indicating wherein the trigger unit generates a sync signal in response to a trigger signal. A person of ordinary skill in the art would have been motivated to make the combine the teachings because Pauw is concerned with receiving trace signal/information from a remote processor (see figure 1 item 200 and page 2 paragraph 15 and 21) and sync signal, as per teachings of McCullough, enable identification of the start of a group of substantive signal that provide trace information (see column 5 lines 41-46).

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pauw in view of Larkin and in further view of McCullough.

Regarding claim 15, Pauw in view of Larkin discloses the claim limitation as discussed above. Pauw further discloses a trace stream generating apparatus (see figure 1 item 100 "tracing mechanism" and page 2 paragraph 15) and the response of the logic unit is the generation of a trigger signal (see figure 3 and page 3 paragraph 26). However, Pauw in view of Larkin fails to disclose:

the trigger signal resulting in a sync marker in the trace stream.

McCullough discloses a tracing system that uses trace sync signal to indicate the start of a group of substantive signal that provide trace information (see column 5 lines 41-46).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Pauw and McCullough to include sync signals, thus indicating the trigger signal resulting in a sync marker in the trace stream. A person of ordinary

skill in the art would have been motivated to make the combine the teachings because Pauw is concerned with receiving trace signal/information from a remote processor (see figure 1 item 200 and page 2 paragraph 15 and 21) and sync signal, as per teachings of McCullough, enable identification of the start of a group of substantive signal that provide trace information (see column 5 lines 41-46).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

See Form PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emerson C. Puente whose telephone number is (571) 272-3652. The examiner can normally be reached on 8-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W. Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Emerson Puente

Emerson Puente
Examiner
AU 2113